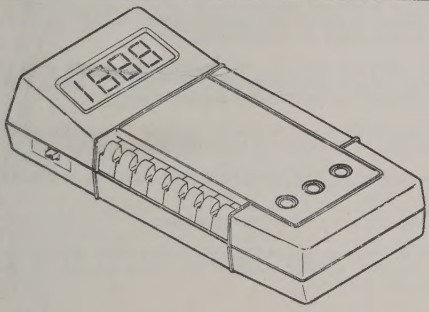
WESTON®

AUDIO RESPONSE™ DIGITAL MULTIMETER

MODEL 6100 ADMM™

INSTRUCTION MANUAL



PREPARATION FOR USE

General

Inspect the instrument for possible damage in shipment. If damage is noted, notify the carrier and supplier before using the instrument.

Battery

The battery is packed separately and is easily installed in the following manner:

WARNING

WHEN INSTALLING BATTERY, DO NOT INSERT TEST LEADS IN JACKS. SET POWER SWITCH TO "OFF" POSITION.

1. Remove three screws from back of instrument.
2. Remove front top cover.
3. Install battery.

SAFETY NOTICE

WESTON EXERTS EVERY EFFORT TO INSURE THAT THIS INSTRUMENT WILL PROVIDE SAFE, DEPENDABLE SERVICE. PERSONNEL USING THE INSTRUMENT ARE URGED TO ACQUAINT THEMSELVES WITH THE OPERATING INSTRUCTIONS BEFORE USING. OPERATING AND MAINTENANCE PERSONNEL MUST AT ALL TIMES OBSERVE ALL SAFETY REGULATIONS WHEN MAKING MEASUREMENTS ON ELECTRICAL CIRCUITS.

AVOID CONTACTS WITH ANY EXPOSED ENERGIZED ELECTRICAL CIRCUITS.

UNDER CERTAIN CONDITIONS, DANGEROUS POTENTIALS MAY EXIST IN CIRCUITS WITH POWER CONTROLS IN THE OFF POSITION DUE TO CHARGES RETAINED BY CAPACITORS. TO AVOID HAZARDS, ALWAYS REMOVE POWER AND DISCHARGE ALL CIRCUITS BY USE OF A GROUNDING STICK PRIOR TO TOUCHING THEM.

CAUTION: DO NOT TOUCH TEST LEADS OR INSTRUMENT BODY WHILE MAKING HIGH VOLTAGE MEASUREMENTS. ALWAYS DE-ENERGIZE CIRCUITS UNDER TEST BEFORE MAKING CONNECTIONS TO OR CHANGING THE POLARITY OF HIGH VOLTAGE CIRCUITS.

DANGEROUS ARCS OF AN EXPLOSIVE NATURE CAN OCCUR IF CIRCUITS ARE SHORTED IN HIGH POWER AREAS SUCH AS DISTRIBUTION TRANSFORMERS.

INSERT BANANA PLUGS OF TEST LEADS FULLY INTO THE JACKS SO THAT NO BARE METAL IS EXPOSED.

OBSERVE INPUT LIMITS. (SEE OPERATION SECTION).

REPLACEMENT OF FUSE AND/OR BATTERY: REMOVE TEST LEADS AND SET THE POWER ON/OFF SWITCH TO THE "OFF" POSITION. REMOVE REAR SCREWS AND LIFT OFF FRONT COVER. (SEE MAINTENANCE SECTION.)

SPECIFICATIONS

DC VOLTAGE

Range	Resolution	Accuracy
100mV	100uV	0.5% Rdg ± 1d
1V	1mV	
10V	10mV	
100V	100mV	
1000V	1V	

Overrange: 100% on all ranges except 1000V
Input Impedance: 10MΩ
Overload Protection: 1000VDC 750VAC
N.M.R.R.: 35dB min., line operation
C.M.R.R.: 80dB min., line operation

AC VOLTAGE (Average Sensing, Sinusoidal RMS Calibrated)

		Accuracy (> 1% Full Scale)		
Range	Resolution	50Hz to 60Hz	45Hz to 1kHz	45Hz to 400Hz
100mV	100uV	0.75% Rdg. ±3d	1% Rdg. ±3d	-
1V	1mV		-	1% Rdg. ±3d
10V	10mV		1% Rdg. ±3d	-
100V	100mV		1% Rdg. ±3d	-
750V	1V		-	1% Rdg. ±3d

Overrange: 100% on all ranges except 750V
Input Impedance: 10MΩ <100pF
Overload Protection: 1000VDC/750VAC on all ranges except 100mV range (300VAC input for 15 sec)

RESISTANCE

Range	Resolution	Accuracy	Full Scale Voltage	Max. Test Current
100Ω	0.1Ω	0.5% Rdg. ±3d	< 150mV	750uA
1KΩ	1Ω	0.5% Rdg. ±1d	< 80mV	55uA
10KΩ	10Ω	0.5% Rdg. ±1d	< 190mV	25uA
100KΩ	100Ω	0.5% Rdg. ±1d	< 210mV	3uA
1MΩ	1KΩ	0.5% Rdg. ±1d	< 210mV	0.3uA
10MΩ	10KΩ	2.5% Rdg. ±1d	< 210mV	0.03uA

Overrange: 100% on all ranges
Overload Protection: 300V AC/DC
Open Circuit Voltage: 2.2V 100Ω Range, typ.
0.3V All Other Ranges

DC CURRENT

Range	Resolution	Accuracy	Burden Voltage
1mA	1uA	1% Rdg. ±1d	0.5VDC max.
10mA	10uA		0.5VDC max.
100mA	100uA		0.5VDC max.
1000mA	1mA		1VDC max.

Overload Protection: 2A, 250V max. Fused, and diode clamped
Overrange: 100% on all ranges

AC CURRENT (Average Sensing, Sinusoidal RMS Calibrated)

		Accuracy (>1% Full Scale)		
Range	Resolution	45Hz to 1kHz	45Hz to 100Hz	45Hz to 400Hz
1mA	1uA	-	1.5% Rdg. ±3d	-
10mA	10uA	-	-	1.5% Rdg. ±3d
100mA	100uA	1.5% Rdg. ±3d	-	-
1000mA	1mA	1.5% Rdg. ±3d	-	-

Overload Protection: 2A, 250V max. Fused, and diode clamped.
Overrange: 100% on all ranges
Burden Voltage: 0.5VAC max. except 1000mA range 1VAC max.

AUDIO FUNCTION

Range	Accuracy
< 1V	±0.01V typ. ±0.05V max.
< 2V	±0.05V typ. ±0.25V max.
< 1 Ω	±0.2 Ω typ. ±0.5Ω max.
< 10 Ω	±1 Ω typ. ±1.5Ω max.
< 100 Ω	±10 Ω typ. ±20Ω max.

Max. Continuous Operating Voltage: -- 20V AC/DC
Max. Test Current: ..... 1mA typ. 1.25mA max.
Open Circuit Voltage: ..... 2.8V typ. 3.2V max.,thru 2.8kΩ nom. resis.
Overload Protection: ..... 300V AC/DC
Hysteresis: ..... 3mV max. on voltage ranges
3Ω max. on resistance ranges
Display Indication: ..... "1" on MSD with a flashing "-" sign.

GENERAL

Display:	3½ digits reflective LCD 0.5" high
Polarity:	Automatic
Reading Rate:	2½ readings per sec.
Basic Accuracy:	18°C to 28°C
Temperature Coefficient:	(0°C to 18°C, 28°C to 50°C) 0.1 X applicable accuracy/°C
Temperature Range:	
Operating:	0 to 35°C at 0 to 80% R.H. 35°C to 50°C at 0 to 70% R.H.
Storage:	-20°C to 60°C**
Power:	Single 9V battery NEDA 1604
Battery Life:	Up to 200 hrs. with alkaline battery depending on usage - "Lo Bat" displayed during the last 10% of useful battery life. Battery eliminator available for extended bench use.
Overrange Indication:	"1" on the MSD with all other digits blank
Physical Characteristics:	Weight: 1 lb. (0.45 kg) Dimensions: 7.5 in. x 3.4 in. x 1.9 in. (190 mm x 86 mm x 49 mm)
Optional - Battery Eliminator:	Battery eliminator allows line operation of the unit. Available in two line voltage versions - 117VAC ± 10% at 60Hz - Cat. No. 9428-2389901 220VAC ± 10% at 50Hz - Cat. No. 9428-2389902. Output voltage for the battery eliminator is 10VDC max. at 2.5mA and 8.5VDC min. at 6mA at nominal line voltage.

** Remove battery when storing instrument above 50°C.

WARNING

DO NOT SUBSTITUTE A CALCULATOR TYPE BATTERY ELIMINATOR FOR THE WESTON BATTERY ELIMINATOR. THESE UNITS DO NOT PROVIDE THE PROTECTION NECESSARY FOR COMMON MODE MEASUREMENTS UP TO 500V DC. ALWAYS USE THE WESTON CAT. NO. LISTED ABOVE FOR AC-LINE OPERATION.

OPERATING INSTRUCTIONS

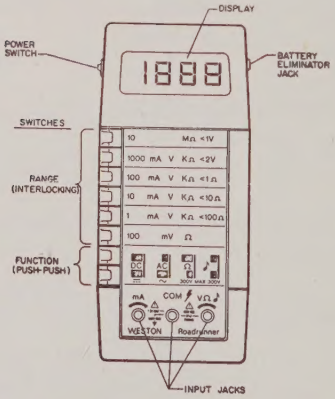


Figure 1. Front Panel

1. Set Power Switch to ON.

2. Select proper function (See Figure 2).

3. Select proper range. Note all ranges are 100% overrange except: 1000VDC, 750VAC and all audio ranges.

4. Connect test leads to appropriate jacks. (See Figure 2). The V-Ω-♪ jack and mA jack are assumed positive with respect to COM jack. Auto priority display will indicate negative input when present.

WARNING

DO NOT EXCEED INPUT VALUES INDICATED IN FIGURE 2. IT IS IMPORTANT TO INSERT THE MALE BANANA PLUG FULLY INTO THE INPUT JACK SO THAT NO BARE METAL IS EXPOSED.

NOTE

The symbol ⚠ on the front panel of the instrument is an international symbol meaning "REFER TO OPERATING INSTRUCTIONS." Warnings and precautions to avoid personal injury and instrument damage are listed throughout this manual

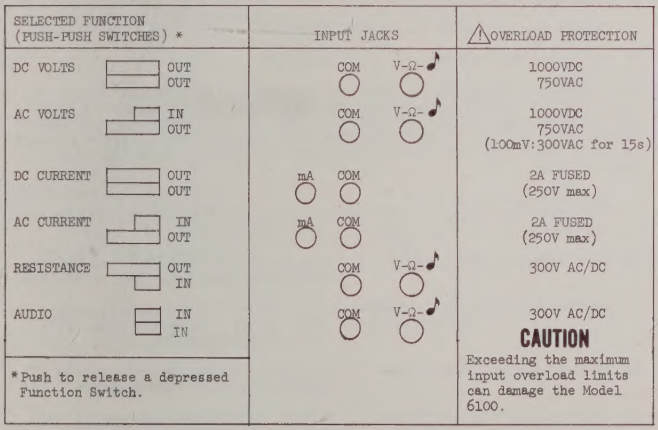


Figure 2. Operation

WARNING

TO AVOID ELECTRICAL SHOCK AND/OR INSTRUMENT DAMAGE, DO NOT CONNECT THE COMMON INPUT TERMINAL TO ANY SOURCE OF MORE THAN 500 VOLTS DC OR RMS AC ABOVE EARTH GROUND.

USING THE AUDIO FUNCTION

The audio function provides an "audible response" to the user within milliseconds after the test is performed, providing the measurement value is below the level marked on the front panel.

The ranges available are $<1\Omega$, $<10\Omega$, $<100\Omega$, $<1V$, $<2V$.
To obtain the audible response, operate as follows:

1. Select the audio function.
2. Connect the test leads to the "V-Ω-♪" and COM jacks.
3. Select the desired range.

The instrument will provide an "audible response" providing the measurement is lower than the selected range value. The response is an approximately 2250 to 2750 Hz square wave with a superimposed 2.2 to 2.7Hz beat signal. For all audio measurements, the V-Ω-♪ jack is positive with respect to COM. Negative voltages on V-Ω-♪ jack, with respect to COM will cause the meter to sound regardless of range selected.

Typical applications are:

1)	Fuse checking ($<10\Omega$ range)	Signal for good fuse.
2)	Diode testing ($<1V$ range)	A forward biased measurement of a good diode should result in an audio response.
3)	Capacitor checking ($<1V$ range) ($<2V$ range)	Short the capacitor and then measure until charged. Momentary signal will acknowledge a good component.
4)	PC board testing ($<1\Omega$ range)	Continuity between two points on the PC board will provide audio response.
5)	Transistor testing ($<1V$ range)	A forward biased base-emitter and base-collector connection should provide "audible response" for a good transistor.
6)	LED testing ($<2V$ range)	A forward biased LED should provide "audible response" for a good LED.
7)	Logic testing $<1V$ range TTL $<2V$ range C MOS	Signal for a logic zero at rep rates of up to 600Hz.*

*Note that the open circuit voltage for all audio ranges is approximately 2.8V, at a source impedance of $2.8k\Omega$ The loading effect of the meter in audio mode should be taken into account when logic testing.

The audio function can also be utilized for testing Darlington transistors, light bulbs, cables, diode bridges, resistors, wire wraps and many other electrical and electronic components.

CAUTION

Do not apply over 300V to the audio function. Allow one minute for recovery after an input signal of $>20V$ is connected to the meter in the audio function.

MAINTENANCE AND CALIBRATION

In the course of normal operation, the instrument should require no maintenance other than the occasional replacement of the battery and the overload protection fuse.

The continuously monitored battery status function will display LO BAT when approximately 10% of battery life remains. To check for a good fuse, select the 100Ω resistance range, and connect a lead from the V-Ω-⏚ jack to the mA jack. A good fuse will read <0.5Ω.

WARNING

BATTERY OR FUSE REPLACEMENT SHOULD ONLY BE PERFORMED AFTER THE INPUT SIGNAL AND TEST LEADS HAVE BEEN REMOVED FROM THE INPUT TERMINALS, AND THE POWER SWITCH IS SET TO OFF.

Battery and Fuse Replacement

1. Remove test leads from instrument.
2. Set instrument power "OFF".
3. Remove 3 screws on the back of the case.
4. Remove top case.
5. Replace defective fuse or battery.

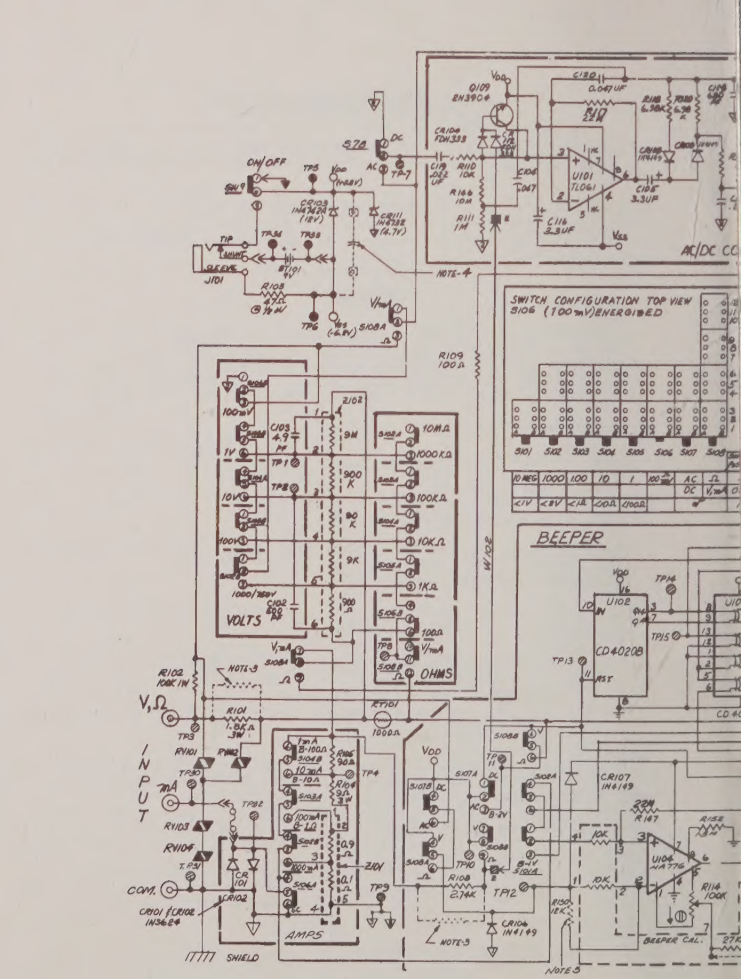
NOTE

Replace batteries with 9V, NEDA 1604 Type.
For extended use, a 9V Alkaline Battery, NEDA 1604A can be substituted.
Replace fuse with 2A, 8AG instrument Type (AGX 2).

Calibration

This instrument has been calibrated at the factory. However, if adjustment is required, please proceed as follows:

1. Remove test leads from instrument.
2. Set instrument power "OFF".
3. Remove 3 screws on the back of the case.
4. Remove top case.
5. Follow instructions on the shield.


AC/DC CO
SWITCH CONFIGURATION TOP VIEW
S106 (100mV) ENERGIZED
BEEPER
VOLTS
OHMS
AMPS
SHIELD
NOTE-3
NOTE-4
NOTE-5
BEEPER CAL.
CD4020B
U101
(LO61)
U102
U104
(MA776)
R109
100Ω
W102
Z102
RT101
1000Ω
R101
1.8K Ω
3W
R102
100K 1W
CR101 / CR102
IN3604
CR104
IN4149
CR107
IN4149
R108
2.74K
R147
33M
R114
100K
R116
10K
R117
10K
C102
.22 MF
C103
4.9 PF
C104
.0047 UF
C105
3.3UF
C106
.047
C116
2.2UF
C132
0.047 UF
Q109
2N3904
R110
10K
R111
1M
R166
10M
R108
47Ω
1W
R105
90Ω
R104
9Ω
3W
R103
2.1Ω
R102
1.0Ω
R101
.5Ω
R100
.1Ω
Z101
Z100
CR111
IN4728
(4.7V)
CR103
IN4728
(28V)
SW9
ON/OFF
TP5
TP6
TP7
TP8
TP9
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP1
TP2
TP3
TP4
S101
S102
S103
S104
S105
S106
S107
S108
RV101
RV102
RV103
RV104
CR101
CR102
V,Ω
mA
COM
INPUT
VOLTS
OHMS
100mV
1V
10V
100V
1000/750V
10MΩ
1000KΩ
100KΩ
10KΩ
1KΩ
100Ω
10Ω
1Ω
9M
900
X
90
X
9K
900
Ω
10 MEG
1000
100
10
1
100 mV
AC
DC
1mA
10mA
100mA
1A
2A
10A
VDD
VSS
JID1
ON/OFF
TIP
TAB
GR.EYE

NOTES

1. Push Button Switch, shown in 200mV DC position.
2. All voltages are reference to common.
3. AR - Trimmer components for Beeper.
4. AR - Filtering for battery eliminator Output.
5. R150, R151 Optional - See Parts List.

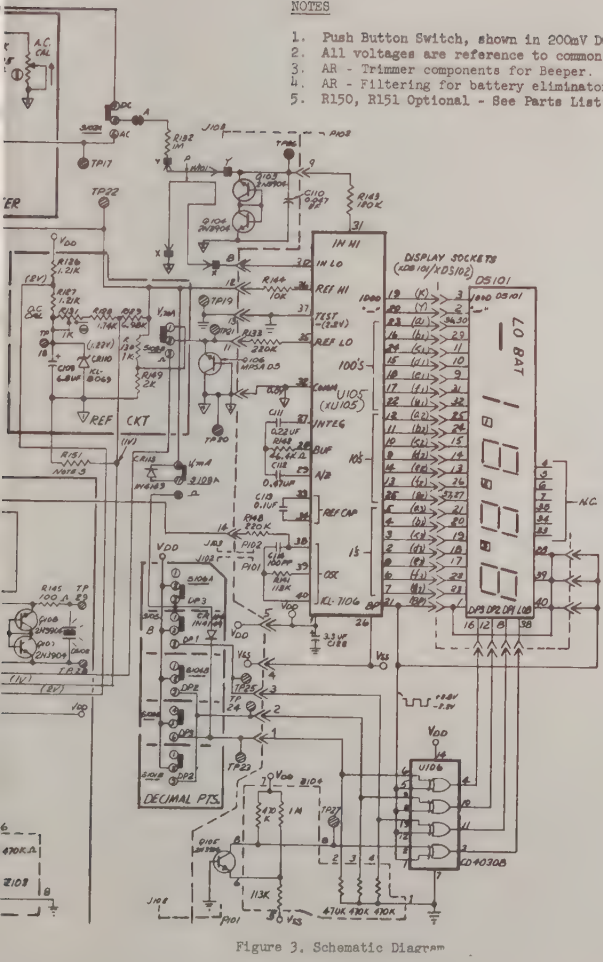


Figure 3. Schematic Diagram

DRAWINGS AND PARTS LIST

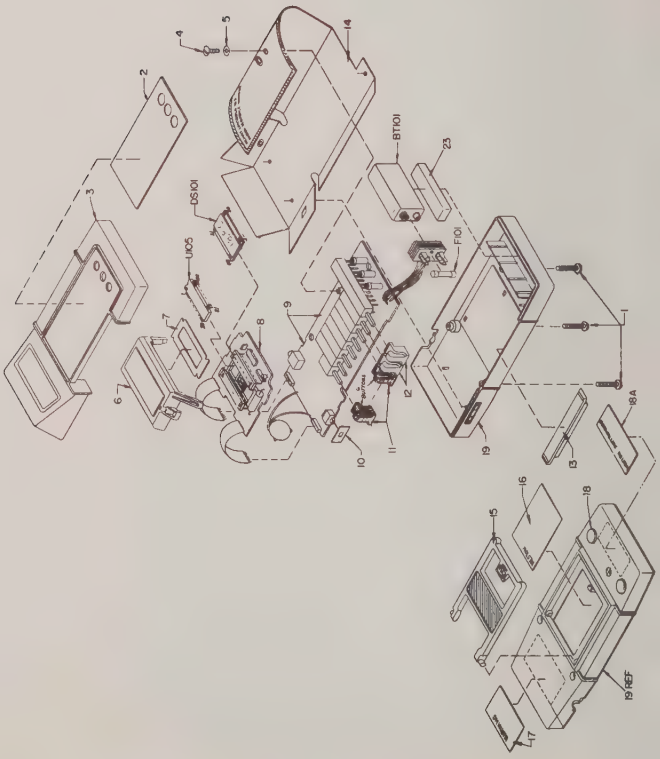


Figure 4. Assembly

PARTS LIST

REF. NUMBER	DESCRIPTION	PART NUMBER
	ASSEMBLY (Ref. Figure 4)	
BT101	BATTERY, TRANSISTOR, 9V, NEDA 1604	276304-001
DS101	DISPLAY, LCD	283812-901
F101	FUSE, 2A, 250V, 8AG INST (AGX 2)	ND60764-001
U105	INTEGRATED CIRCUIT, ICL-7106CPL	281836-001
1	SCREW, NO. 6-32 thd x 0.625 in. lg.	278295-001
2	PLATE, RANGE, Domestic	282379-901
2	PLATE, RANGE, Foreign	282379-902
2	PLATE, RANGE, French	282379-903
3	CASE, TOP	282374-902
4	SCREW, NO. 6-32 thd x 1/4 in. lg.	281855-024
5	WASHER, SPRING	281835-001
6	COVER, DISPLAY	282372-001
7	MASK, DISPLAY	282403-901
8	BOARD ASSY, DISPLAY (See separate list for details)	-
9	BOARD ASSY, MAIN (See separate list for details)	-
10	DELETED	-
11	BUTTON, SWITCH, PUSH, Black	282377-901
12	BUTTON, SWITCH, PUSH, White	282377-902
13	PLATE, COVER, SWITCH	282376-901
14	SHIELD, RF	282378-901
15	HANDLE, STAND	282387-901
16	LABEL, INSTRUCTION, Domestic	282381-901
16	LABEL, INSTRUCTION, French	282381-902
16	LABEL, INSTRUCTION, Enertec	282381-903
16	LABEL, INSTRUCTION, Italian	282381-904
16	LABEL, INSTRUCTION, Spanish	282381-905
16	LABEL, INSTRUCTION, Swedish	282381-906
16	LABEL, INSTRUCTION, German	282381-907
17	LABEL, BATTERY ELIMINATOR	282392-901
18	FOOT	279078-001
18A	LABEL, SERIAL NO.	282687-901
19	CASE, BOTTOM	282375-901
20	LEADS, TEST (Not shown)	270066-001
21	REMOVED	-
22	DELETED	-
23	PAD, BATTERY	282685-901

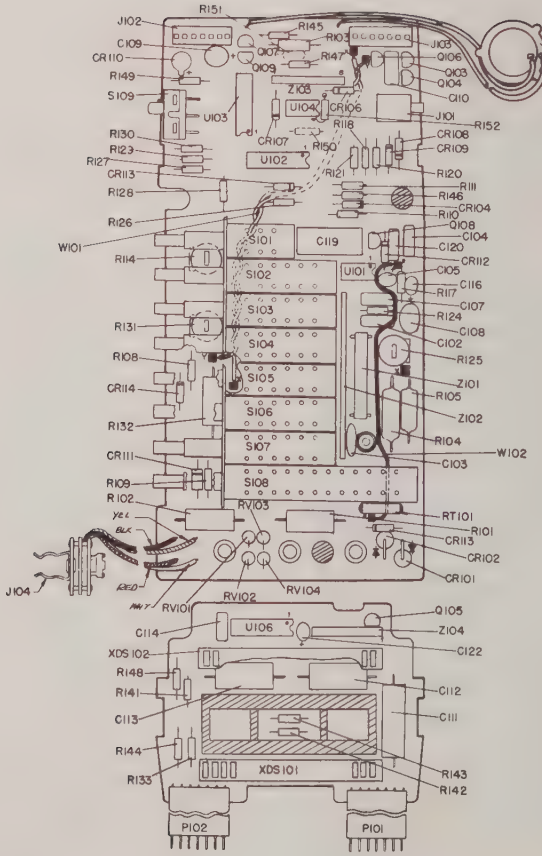


Figure 5. Board Assembly

REF. SYMBOL	DESCRIPTION	PART NUMBER
	BOARD ASSY (Ref. Figure 5)	
C102	CAPACITOR, MYLAR, 500pF±2%, 300V	274226-001
C103	CAPACITOR, CERAMIC, 4.7pF±0.1pF, 1000V	281902-002
C104	CAPACITOR, MYLAR, 0.047uF±20%, 100V	281808-001
C105	CAPACITOR, TANTALUM, 3.3uF±20%, 15V	277895-907
C107	CAPACITOR, MYLAR, 0.22uF±10%, 100V	281990-001
C108	CAPACITOR, CERAMIC, 680pF±10%, 500V	281807-001
C109	CAPACITOR, TANTALUM, 6.8uF±20%, 6V	277895-902
C110	CAPACITOR, MYLAR, 0.047uF ±20%, 100V	281808-001
C111	CAPACITOR, POLYPROPYLENE, 0.22uF±10%, 250V	281852-001
C112	CAPACITOR, MYLAR, 0.47uF±10%, 100V	281838-001
C113	CAPACITOR, MYLAR, 0.1uF±10%, 100V	281821-001
C114	CAPACITOR, MICA, 100pF±1%, 500V	281834-001
C116	CAPACITOR, TANTALUM, 3.3uF±20%, 15V	277895-907
C119	CAPACITOR, MYLAR, 0.022uF±20%, 1000V	282388-901
C120	CAPACITOR, MYLAR, 0.047uF±20%, 100V	281808-001
C122	CAPACITOR, TANTALUM, 3.3uF±20%, 15V	277895-907
CR101	DIODE, RECTIFIER, 1N5624	281820-001
CR102	DIODE, RECTIFIER, 1N5624	281820-001
CR103	DIODE, ZENER, 1N4742A	264601-001
CR104	DIODE, FDH333	281822-001
CR106	DIODE, 1N4149	281805-001
CR107	DIODE, 1N4149	281805-001
CR108	DIODE, 1N4149	281805-001
CR109	DIODE, 1N4149	281805-001
CR110	DIODE, MP85010HN	283184-001
CR110	DIODE, ICL8069 (Alternate)	278349-901
CR111	DIODE, ZENER, 1N4732A	281809-001
CR112	DIODE, FDH333	281822-001
CR113	DIODE, 1N4149	281805-001
CR114	DIODE, 1N4149	281805-001
DS102	ANNUNCIATOR, BEEPER	282395-901
J101	JACK, POWER	282401-901
J102	CONNECTOR	281810-001
J103	CONNECTOR	281810-001
J104	CONNECTOR ASSY	282400-901
J105	DELETED	-
J106	DELETED	-
P101	STRIP, CONNECTOR	281813-001
P102	STRIP, CONNECTOR	281813-001
Q103	TRANSISTOR, 2N3904	281826-001
Q104	TRANSISTOR, 2N3904	281826-001
Q105	TRANSISTOR, 2N3904	281826-001

PARTS LIST

REF.SYMBOL	DESCRIPTION	PART NUMBER
Q106	TRANSISTOR, MPS-A05	281823-001
Q107	TRANSISTOR, 2N3904	281826-001
Q108	TRANSISTOR, 2N3904	281826-001
Q109	TRANSISTOR, 2N3904	281826-001
R101	RESISTOR, 1.8k ohms ±2%, 3W	281848-001
R102	RESISTOR, 100k ohms ±10%, 1W	ND24023-001
R103	RESISTOR, 47 ohms ±5%, 1/2W	ND61066-001
R104	RESISTOR, 9 ohms ±1/10%, 3W	281842-001
R105	RESISTOR, 90 ohms ±1/10%, 1/2W	281843-001
R108	RESISTOR, 2.74k ohms ±1%, 1/4W	272863-001
R109	RESISTOR, 100 ohms ±1/10%, 1/4W	281799-001
R110	RESISTOR, 10k ohms ±5%, 1/4W	278432-989
R111	RESISTOR, 1.0M ohms ±5%, 1/4W	278433-941
R114	RESISTOR, VARIABLE, 100k ohms ±20%	282407-904
R114	RESISTOR, VAR, 500k ohms ±20%(Alternate to 100k)	282407-902
R117	RESISTOR, 22M ohms ±10%, 1/4W	281801-001
R118	RESISTOR, 6.98k ohms ±1%, 1/4W	278439-982
R120	RESISTOR, 6.98k ohms ±1%, 1/4W	278439-982
R121	RESISTOR, 1M ohms ±5%, 1/4W	268778-001
R124	RESISTOR, 3.01k ohms ±1%, 1/4W	278439-947
R125	RESISTOR, VARIABLE, 500 ohms ±20%	282407-901
R126	RESISTOR, 1.21k ohms ±1%, 1/4W	278439-909
R127	RESISTOR, 1.21k ohms ±1%, 1/4W	278439-909
R128	RESISTOR, 1.74k ohms ±1%, 1/4W	278439-924
R129	RESISTOR, 6.98k ohms ±1%, 1/4W	278439-982
R130	RESISTOR, 1k ohms ±1%, 1/4W	268779-001
R131	RESISTOR, VARIABLE, 1k ohms ±20%	282407-903
R132	RESISTOR, 1M ohms ±10%, 1W	281839-001
R133	RESISTOR, 220k ohms ±5%, 1/4W	278433-925
R141	RESISTOR, 113k ohms ±1%, 1/4W	281800-001
R142	RESISTOR, 46.4k ohms ±1%, 1/4W	278440-965
R143	RESISTOR, 120k ohms ±5%, 1/4W	278433-919
R144	RESISTOR, 10k ohms ±5%, 1/4W	278432-989
R145	RESISTOR, 100 ohms ±5%, 1/4W	278432-941
R146	RESISTOR, 10M ohms ±10%, 1/4W	278433-965
R147	RESISTOR, 22M ohms, ±10%, 1/4W	281801-001
R148	RESISTOR, 220k ohms ±5%, 1/4W	278433-925
R149	RESISTOR, 2k ohms ±1%, 1/4W	278439-930
**R150	RESISTOR, 12k ohms ±5%, 1/4W	278432-991
R151	RESISTOR, 46.4k ohms ±1%, 1/4W (As reqd at test)	278440-965
R152	RESISTOR, 1.5M ohms ±5%, 1/4W	278433-945

**R150 used with Z103 PN282393-001 only.

PARTS LIST

REF. SYMBOL	DESCRIPTION	PART NUMBER
RT101	THERMISTOR, 1000 ohms ±20%	282399-903
RV101	VARISTOR	281802-001
RV102	VARISTOR	281802-001
RV103	VARISTOR	281802-001
RV104	VARISTOR	281802-001
S101 Thru S108	SWITCH ASSY	282384-901
S109	SWITCH, ON-OFF	282385-901
U101	INTEGRATED CIRCUIT, OP AMP, TL061	281840-001
U102	INTEGRATED CIRCUIT, CD4020B	281825-001
U103	INTEGRATED CIRCUIT, CD4030B	281824-001
U104	INTEGRATED CIRCUIT, OP AMP, uA776/MC1776	281923-001
U106	INTEGRATED CIRCUIT, CD4030B	281824-001
W101	LEAD, TWISTED PAIR	282694-901
W102	LEAD, INTERCONNECT	282695-901
XDS101	CONNECTOR, DISPLAY	282402-901
XDS102	CONNECTOR, DISPLAY	282402-901
XU105	SOCKET, LSI CHIP	278165-001
Z101	RESISTOR, MODULE, CURRENT ATTENUATOR	282396-001
Z102	RESISTOR, MODULE, VOLTAGE ATTENUATOR	282397-902
Z103	RESISTOR, MODULE, BEEPER BIASING CKT	282688-001
*Z103	RESISTOR, MODULE (ALTERNATE)	282393-001
Z104	RESISTOR, MODULE, LO BAT BIASING CKT	282394-001
-	BOARD ASSY, HARDWARE	282404-901

*Z103 PN28293-001 and R150 PN278932-991 alternate for Z103 PN282688-001.

NOTES

WARRANTY

Weston warrants equipment of its manufacture against defective materials or workmanship for a period of one year from date of shipment.

The liability of Seller under this warranty is limited, at Seller's option, solely to repair, replacement with equivalent Weston equipment, at an appropriate credit adjustment not to exceed the original equipment sales price, of equipment returned to the Seller provided that (a) Seller is promptly notified in writing by Buyer upon discovery of defects, (b) Upon receipt of written authorization from Seller the defective equipment is returned as directed, transportation charges prepaid by Buyer, and (c) Seller's examination of such equipment discloses to his satisfaction that defects were not caused by negligence, misuse, improper installation, accident, or unauthorized repair or alteration by the Buyer.

This warranty does not include mechanical parts failing from normal usage nor does it cover limited life electrical components which deteriorate with age such as batteries, etc.

This warranty is in lieu of all other warranties, expressed or implied, including the implied warranty of fitness for a particular purpose to the original purchaser or to any other person. Seller shall not be liable for consequential damages of any kind.

The aforementioned provisions do not extend the original warranty period of any article which has been either repaired or replaced by Seller.

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